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APPARATUS AND METHODS FOR MATERIAL CAPTURE AND REMOVAL

ABSTRACT OF THE DISCLOSURE

Catheters, kits, and methods are provided for removing material from a body lumen. The catheters and methods may be used in a variety of body lumens, including but not limited to coronary and other arteries. In general, the catheter has a cutting element that cuts material while the material is engaged by a material capture device on the catheter body. Preferably, the material capture device tensions the material during cutting, which reduces the amount of cutting force required. The material capture device typically follows a path that draws material into the catheter body. Preferably, but not necessarily, the material capture device may be arranged on the catheter body to advance along a path outwardly from the catheter body into the material and then inwardly towards the catheter body to tension the material. The cutting element on the catheter body moves between a first position and a second position to cut the material while in tension.

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